

Appl. No. 10/707,422
Docket No. 139805/GEM-0091

REMARKS / ARGUMENTS

Status of Claims

Claims 1-30 are pending in the application and stand rejected. Applicant has amended Claims 1, 12, 20 and 27, and has added new claims 31 and 32, leaving Claims 1-32 for consideration upon entry of the present Amendment.

Applicant respectfully submits that the rejections under 35 U.S.C. §102(b) and 35 U.S.C. §103(a) have been traversed, that no new matter has been entered, and that the application is in condition for allowance.

Objections to the Claims

Claim 27 is objected to because of informalities relating to the phrase "a sensor device".

Applicant has amended Claim 27 to now recite, inter alia,

"...receiving an x-ray beam into an opening of a focal spot sensing device, the focal spot sensing device having a sensor device...".

No new matter has been added as antecedent support may be found in the specification as originally filed, such as at Paragraphs [0023-0024] and Figures 3-5, for example.

As discussed, illustrated, and claimed, Applicant describes a focal spot sensing device 50 (Paragraph [0023] and Figures 3-5) having an opening 60 through which x-rays 16 pass, where the sensing device 50 includes a sensor device 55 (Paragraph [0024] and Figures 3-5). As amended, the phrase "the focal spot sensing device having a sensor device" provides proper antecedent support for the later used phrase "the sensor device".

In view of the amendment and foregoing remarks, Applicant submits that the informalities directed to Claim 27 have been overcome.

Accordingly, Applicant respectfully requests reconsideration and withdrawal of this objection.

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Rejections Under 35 U.S.C. §102(b)

Claims 1-4, 10-15, 18-23 and 26-29 stand rejected as being anticipated by Pfoh (U.S. Patent No. 5,657,364, hereinafter Pfoh).

Applicant traverses this rejection for the following reasons.

Applicant respectfully submits that "[a] claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, *in a single prior art reference.*" *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987) (emphasis added). Moreover, "[t]he identical invention must be shown in as complete detail as is contained in the *** claim." *Richardson v. Suzuki Motor Co.*, 868 F.2d 1226, 1236, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989). Furthermore, the single source must disclose all of the claimed elements "arranged as in the claim." *Structural Rubber Prods. Co. v. Park Rubber Co.*, 749 F.2d 707, 716, 223 U.S.P.Q. 1264, 1271 (Fed. Cir. 1984). Missing elements may not be supplied by the knowledge of one skilled in the art or the disclosure of another reference. *Titanium Metals Corp. v. Banner*, 778 F.2d 775, 780, 227 U.S.P.Q. 773, 777 (Fed. Cir. 1985).

Applicant has amended Independent Claim 1 to now recite, inter alia,

"...a sensor device disposed in the housing that interprets a position of the x-ray beam for calculating a position of a focal spot, the sensor device being disposed in the housing such that an area of the x-ray allowed to fall on the sensor device changes *in both position and size at the sensor device* in response to movement of the focal spot."

Applicant has amended Independent Claim 12 to now recite, inter alia,

"...wherein an area of the x-ray is allowed to fall on the means for calculating such that the area changes *in both position and size at the means for calculating* in response to movement of the focal spot."

Applicant has amended Independent Claim 20 to now recite, inter alia,

"...the sensor device being disposed in the housing such that an area of the x-ray allowed to fall on the sensor device changes *in both position and size at the sensor device* in response to movement of the focal spot."

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Applicant has amended Independent Claim 27 to now recite, inter alia,

"...calculating a position of the focal spot in response to an area of the x-ray beam allowed to fall on the sensor device changing *in both position and size at the sensor device* in response to movement of the focal spot."

No new matter has been added by these amendments as antecedent support may be found in the specification as originally filed, such as at Paragraph [0026] and Figures 3-5 for example. Figures 3-5 illustrate an opening 60 that produces a shadow effect with regard to the beam 16 falling upon the detector elements 56, 58, 76, thereby resulting in a change in both position and size of area 62, 64, 84 at the sensor device 55 as focal spot 52 moves.

Dependent claims inherit all of the limitations of the respective parent claim.

In rejecting the instant invention for anticipation, and in response to Applicant's arguments filed 29 July 2005, the Examiner comments that Pfoh discloses that "a different area of the x-ray beam falls on the sensor device in response to movement of the focal spot." Paper 08102005, page 7.

In support of this position, the Examiner comments: "When the focal spot is at the left extreme position (116), the central x-ray beam falls directly on the detector element (100), while the detector element (102) is illuminated by an area of the x-ray beam on the right of the central x-ray beam. When the focal spot is at the right extreme position (118), the central x-ray beam falls directly on the detector element (102), while the detector element (100) is illuminated by an area of the x-ray beam on the left of the central x-ray beam."

Applicant appreciates the further explanation and thanks the Examiner for the same. However, in view of the amendments, Applicant submits that Pfoh does not disclose each and every element of the claimed invention arranged as claimed.

As best understood by Applicant, it appears that the Examiner is comparing an area within the Pfoh x-ray beam itself to the claimed area that actually falls on the sensor device.

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In Pfoh, and as described by the Examiner, the x-ray beam (16) moves from one extreme to another (116, 118), thereby allowing a different portion of the x-ray beam to fall on the detector elements (100, 102). However, the area that actually falls on the detector elements is seen to be defined by the slots (112, 114). In comparing Pfoh with the instant invention, Applicant does not find this area (that actually falls on detector elements) to change in both position and size. Applicant's understanding of Pfoh is supported by Pfoh at column 4, lines 42-44, which describes how the signal intensity of the x-ray (not the position and size of the illuminated area) changes.

In the instant invention, Applicant is claiming a sensor device being disposed in the housing such that an area of the x-ray *allowed to fall on the sensor device changes in both position and size* in response to movement of the focal spot. This can be readily seen from Figures 3-5 of the instant invention, where opening (60) creates a shadow effect that changes the position and size of the area of the x-ray allowed to fall on the sensor device.

While Applicant believes that the already presented claim language sufficiently describes the structure considered to be the invention, Applicant has nonetheless, in an attempt to further this application to allowance, amended Claims 1, 12, 20 and 27, to more particularly define the invention.

In comparing Pfoh with the instant invention as amended, Applicant finds Pfoh to be absent a sensor device being disposed in the housing such that an area of the x-ray *allowed to fall on the sensor device changes in both position and size* in response to movement of the focal spot.

Accordingly, Applicant submits that Pfoh does not disclose all of the claimed elements arranged as in the claim, and absent anticipatory disclosure in Pfoh of each and every element of the claimed invention arranged as in the claim, Pfoh cannot be anticipatory.

In view of the amendment and foregoing remarks, Applicant submits that Pfoh does not disclose each and every element of the claimed invention arranged as claimed and therefore cannot be anticipatory. Accordingly, Applicant respectfully submits that

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the Examiner's rejection under 35 U.S.C. §102(b) has been traversed, and requests that the Examiner reconsider and withdraw of this rejection.

Rejections Under 35 U.S.C. §103(a)

Claims 5-9, 16, 17, 24, 25 and 30 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Pfoh as applied to Claims 1, 4, 12, 20 and 27 above, and further in view of Warren (U.S. Patent No. 6,362,481 B1, hereinafter Warren).

Applicant traverses these rejections for the following reasons.

Applicant respectfully submits that the obviousness rejection based on the References is improper as the References fail to teach or suggest each and every element of the instant invention arranged so as to perform as the claimed invention performs. For an obviousness rejection to be proper, the Examiner must meet the burden of establishing a prima facie case of obviousness. *In re Fine*, 5 U.S.P.Q.2d 1596, 1598 (Fed. Cir. 1988). The Examiner must meet the burden of establishing that all elements of the invention are taught or suggested in the prior art. MPEP §2143.03.

As discussed above regarding the rejections under 35 U.S.C. §102, Applicant has amended independent Claims 1, 12, 20 and 27 to overcome the anticipation rejection with respect to Pfoh, and herein submits that Warren fails to cure the deficiencies of Pfoh.

Dependent claims inherit all of the limitations of the respective parent claim and any intervening claim.

In view of the foregoing, Applicant submits that the References fail to teach or suggest each and every element of the claimed invention and are therefore wholly inadequate in their teaching of the claimed invention as a whole, fail to motivate one skilled in the art to do what the patent Applicant has done, fail to offer any reasonable expectation of success in combining the References to perform as the claimed invention performs, and discloses a substantially different invention from the claimed invention, and therefore cannot properly be used to establish a prima facie case of obviousness. Accordingly, Applicant respectfully requests reconsideration and withdrawal of all rejections under 35 U.S.C. §103(a), which Applicant considers to be traversed.

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In light of the forgoing, Applicant respectfully submits that the Examiner's rejections under 35 U.S.C. §102(b) and 35 U.S.C. §103(a) have been traversed, and respectfully requests that the Examiner reconsider and withdraw these rejections.

New Claims 31 and 32

Applicant has added new Claims 31 and 32 that are directed to disclosed but unclaimed subject matter. No new matter has been added as antecedent support may be found in the specification as originally found, such as at Figures 3 and 4 (disclosing the x-ray 16 being allowed to fall on just a portion of each of the at least two detector elements 56, 58), for example.

Claim 31 depends from Claim 27, and Claim 32 depends from Claim 1 through Claim 4. In view of the remarks set forth above regarding Claims 1 and Claim 27, Applicant submits that Claims 31 and 32 are directed to allowable subject matter, and therefore respectfully requests entry and notice of allowance thereof.

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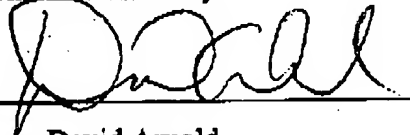
The Commissioner is hereby authorized to charge any additional fees that may be required for this amendment, or credit any overpayment, to Deposit Account No. 07-0845.

In the event that an extension of time is required, or may be required in addition to that requested in a petition for extension of time, the Commissioner is requested to grant a petition for that extension of time that is required to make this response timely and is hereby authorized to charge any fee for such an extension of time or credit any overpayment for an extension of time to the above-identified Deposit Account.

Respectfully submitted,

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